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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,315	02/01/2001	Hyun-Sook Jung	41671/DBP/Y35	8247

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 10/29/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/775,315

Applicant(s)

JUNG ET AL.

Examiner

Julian A. Mercado

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8-11-03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Remarks

This Office Action is responsive to applicant's response filed August 11, 2003.

Claims 1-4 and 10 are pending.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 10 is rejected under 35 U.S.C. 103(a) as obvious over Mayer. (U.S. Pat. 5,783,333).

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pynenburg et al. (U.S. Pat. 5,429,890) in view of Hasegawa et al. (U.S. Pat. 5,370,948).

The rejection is maintained for the reasons of record and for the additional reasons to follow. The examiner notes that claims 1-4 and 10 are pending as original claims.

Applicant's arguments filed with the present response have been fully considered, however they are not persuasive.

Applicant submits that the Rule 132 Declaration filed August 11, 2003 presents unexpectedly superior properties. However, the declaration is found insufficient to overcome the rejection of claims 1 and 4-10 as set forth in the last Office action for the following reasons:

a. As to the rejection of claim 10, the declaration is found immaterial over the rejection based on Mayer in that claim 10 recites a lithium nickel *cobalt* oxide while the declaration is merely based on lithium nickel *manganese* oxide. [emphasis added] The declaration as applicable to claims 1-4 here follows.

b. As to the rejection of claims 1-4, while the showing of unexpected results only needs to show a “representative” number, evidence of non-obviousness must be commensurate in scope with the claims. In the instant case, the declaration merely compares a ratio of “greater than 1” to a ratio of “2/8”, the latter relied upon as the single representative data point within the claimed ratio of “less than 1”.

c. Contrary to applicant’s assertion, the showing of superior discharge capacity is not found to be “unexpected”. Applicant’s ratio of less than 1 for the lithium manganese oxide to the lithium nickel manganese oxide essentially requires that the lithium nickel manganese oxide is the main component, i.e. present at greater than 50% by weight. Hasegawa et al. teaches that the compound $\text{LiNi}_{1-x}\text{Mn}_x\text{O}_2$ (lithium nickel manganese oxide) results in an *increase* in discharge capacity in a battery compared to when that battery employs the active material without nickel, “when a portion of nickel in LiNiO_2 is replaced with manganese to have a new compound $\text{LiNi}_{1-x}\text{Mn}_x\text{O}_2$, the properties thereof for the cell are highly improved”. (col. 2 line 35-38) The “improved property” is in reference to the battery’s discharge capacity, “the discharge capacity can be increased by the replacement of a portion of nickel ions of LiNiO_2 with manganese ions”. (col. 4 line 47-49) Thus, at least to the skilled artisan, having lithium nickel manganese oxide present as the main component would expectedly result in a higher discharge capacity

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compared to when nickel is absent from the active material. Similarly, in Mayer the discharge capacity with nickel present in the active material also results in the discharge capacity to increase from, e.g. approx. 112 mAh/gm (see Figure 5) to 142 mAh/gm (see Figure 6). (col. 18 line 31-38) Applicant's alleged showing of superior discharge capacity of 179 mAh/g is merely found as the expected mathematical result of the average of the active materials, as Mayer specifically references the discharge capacity of the "Ni parent compound" as 180 mAh/gm with the discharge capacity specifically disclosed as the average of the active materials. (col. 18 line 10, line 34-36)

Conclusion

The prior art relied upon in this Office Action will not be provided, since it is the same prior art presently of record.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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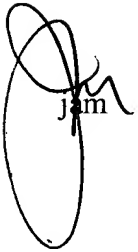
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian A. Mercado whose telephone number is (703) 305-0511.

The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-2383. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam



Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700